Abstract:

Method and Circuit System for Calibrating Voltage and Temperature Deviations of the Effective Current of Hydraulic Valves in a PWM Drive

The present invention relates to a method for reducing deviations between the effective current (I_{RMS}) and the measured current (I_{meas}) in a pulse-width-modulated current control, in particular for electronic brake control units of motor vehicles, wherein the measured current (I_{meas}) is determined at a certain predefined time within an actuation period (t_{PWM}) and a compensation occurs by means of temperature-responsive and/or supply-voltage-responsive compensation variables which are added to the measured current (I_{meas}) such that a corrected nominal current ($I_{nominal}$) is available for current control. The invention also relates to a circuit arrangement for actuating several inductive loads and comprises a circuit for PWM control of the load current. The method of the invention is implemented as a program in a microcomputer or microcomputer system that is electrically connected to the PWM circuit.

(Figure 1)